REMARKS

Claims 10 and 25 have been amended to include the subject matter of dependent claims 11, 14, 15, and 19 and 26, 29, 30, and 34, respectively. Independent claims 25 and 38 have been amended to address a Section 101 issue raised by the Examiner. Claims 1-9, 11, 14, 15, 19, 22, 24, 26, 29, 30, 34, 37, and 39 have been canceled. Claims 12, 13, 20, 27, 28, and 35 have been amended to adjust dependencies. Thus, claims 10, 12, 13, 16-18, 20, 21, 23, 25, 27, 28, 31-33, 35, 36, and 38 are currently pending.

The Amendment also modifies the specification at paragraphs 0023, 0047, and 0062 to cite to reference numerals already shown in the drawing, at paragraph 0032 to remove hyperlinks, and at paragraph 0072 to address an informality. Applicants respectfully submit that no new matter has been added to the application by the Amendment.

Preliminarily, Applicants note that the Examiner has objected to the drawings for the reason that reference numerals 182, 184, 186, 195, 300, and 535 are shown but not cited to within the specification. Accordingly, Applicants have amended the specification at paragraphs 0023, 0047, and 0062 to cite to such reference numerals. Thus, Applicants respectfully submit that the objection to the drawings has been obviated and that amended drawing sheets are not needed.

The Examiner has objected to the specification for the inclusion of hyperlinks at paragraph 0032. Accordingly, Applicants have amended the specification at paragraph 0032 to remove such hyperlinks. The Examiner has objected to the specification for informalities in paragraphs 0062 and 0072. Accordingly, Applicants have amended the specification at such paragraphs to address such informalities.

The Examiner has rejected claims 25-36 and 38 under 35 USC § 101 as (potentially) being directed to non-statutory subject matter. Applicants respectfully traverse the § 101 rejection insofar as it may be applied to the claims as amended.

According to the Examiner, a 'computer-readable medium' as recited in claims 8-14 can include a modulated data signal. Thus, Applicants have amended claim 8 to recite a computer-readable *storage* medium. As a result, Applicants respectfully submit that claims 25 and 38 and all claims depending therefrom including claims 26-36 now recite statutory

subject matter, and thus respectfully request reconsideration and withdrawal of the § 101 rejection.

In the Office Action, the Examiner has rejected the pending claims under 35 USC § 103 as being obvious over Enck et al. (U.S. Pat. Pub. No. 2002/0183972) in view of Lownsbrough (U.S. Pat. No. 7,003,572). Applicants respectfully traverse the § 103 rejection insofar as it may be applied to the claims as amended.

As set forth in the specification of the present application, the present invention is directed toward improving the efficiency of a message processing system based on using performance data to determine the overall workload of such a system and to determine whether the system is overburdened with messages. In response to such a determination, the number and/or type of new messages can be restricted so as to enable the system to process the existing work. In addition, the metrics can be used to predict how long an idle process will remain idle, thereby enabling a determination as to whether the system should move the process out of active memory.

Notably, the message processing system may be employed with regard to intra- and inter-computer messaging. For example, the message processing system may effectively be employed at the front end of an inter-network service, such as for example a car rental reservations system that is accessible by way of the Internet, to prevent such reservations system from being overloaded at times of high traffic. Similarly, the message processing system may effectively be employed at the front end of an internal application running on a computer, such as for example a file access system for the computer that is accessible by multiple programs on the computer, to prevent such file access system from being overloaded at times of high traffic.

Independent claim 10 as amended recites a method for improving the efficiency of a message processing system. In the method, a workload of a message processing system is determined by accessing performance data regarding the message processing system, and determining, using the performance data, the workload with respect to a system operating parameter. A new message is polled for according to the workload status, and a blocked instance being processed by the message processing system is identified.

An expected idle time for the blocked instance is calculated by accessing performance data for the message processing system, determining a length of time the blocked instance

has been idle, and generating the expected idle time based on the performance data and length of time the blocked instance has been idle, and the blocked instance is dehydrated if the expected idle time exceeds a predetermined threshold. Significantly, the workload is then updated according to the dehydration of the instance, and the threshold is updated according to the workload.

Independent claim 23 recites a method similar to that of claim 10, albeit somewhat more broadly. Notably, in claim 23, the workload is updated according to the dehydration, and the performance data is updated according to the polling of a new message. In addition, in claim 23, polling for a new message is performed at a frequency, wherein the frequency is inversely proportional to the workload and, if the workload is above a predetermined limit, polling is only for a new non-activation message.

Independent claims 25 and 38 recite subject matter substantially similar to that of claims 10 and 23, albeit in the form of a computer-readable storage medium.

The Enck reference discloses a system that collects performance data and that adjusts such collection based on performance policy. As set forth in the Abstract, a system performance metric is measured and evaluated to determine system health. The system performance metric measuring step is then dynamically adjusted based on a self-monitoring data collection policy and system health. As pointed out by the Examiner, the Enck reference in particular discloses at paragraph 0042 thereof that data management features (i.e., possible responses to poor system health) can include: dynamic control (i.e., the ability to start and stop collections on-the-fly); capacity management (i.e., the ability to maintain a specified amount of data in a collection); filtering (i.e., the ability to access a subset of the collected data based on some criteria); and calculation (i.e., the ability to create metrics based on measurements and mathematical formulas).

Significantly, the Enck reference does not disclose or suggest that the Enck system determines a length of time a blocked instance has been idle, and generates an expected idle time based on the performance data and length of time the blocked instance has been idle, as is required by claims 10 and 25, or that a blocked instance is dehydrated if the expected idle time exceeds a predetermined threshold, as is also required by claims 10 and 25. Also, the Enck reference does not disclose or suggest that the Enck system that the workload is then

updated according to the dehydration of the instance, and the threshold is updated according to the workload, as is further required by claims 10 and 25.

Similarly, the Enck reference does not disclose or suggest that the Enck system calculates an expected idle time for a blocked instance based on performance data relating to a message processing system, as is required by claims 23 and 38, determines whether the expected idle time exceeds a predetermined threshold and, if so dehydrates the blocked instance and performs updating steps regarding the workload and performance data, as is also required by claims 23 and 38. Also, the Enck reference does not disclose or suggest that the Enck system polls for a new message at a frequency, wherein the frequency is inversely proportional to the workload and, if the workload is above a predetermined limit, polling only for a new non-activation message, as is further required by claims 23 and 38.

The Lownsbrough reference discloses a system and method for efficiently forwarding client requests from a proxy server in a TCP/IP computing environment. In the Lownsbrough system, time estimates of TCP overhead, slow start overhead, time-to-idle, and request transfer time for sending the requests over each of a plurality of managed connections to the origin server are dynamically calculated, concurrent to receiving and during processing of each request.

Notably, though, the Lownsbrough reference like the Enck reference also fails to disclose or even suggest that a workload should or could be updated according to the dehydration of the instance, and the threshold is updated according to the workload, as is further required by claims 10 and 25; or that if an expected idle time exceeds a predetermined threshold a blocked instance should or could be dehydrated and updating steps regarding the workload and performance data are performed, as is required by claims 23 and 38; or that polling for a new message should or could be performed at a frequency that is inversely proportional to the workload and, if the workload is above a predetermined limit, polling only for a new non-activation message, as is also required by claims 23 and 38.

Applicants respectfully note several instances where the Examiner makes a leap from a broad, non-specific disclosure in the Enck reference to a narrow, specific disclosure. For example, with regard to the updating steps of claim 23, the Examiner notes that each such specific updating step is purportedly disclosed in the Enck reference because such Enck reference contains a broad teaching of "steps of measuring, evaluating and dynamically

adjusting that *can be* repeated to allow for continuous adaptive monitoring of the system performance metrics" (emphasis added).

Applicants respectfully disagree, and moreover respectfully submit that such a leap from a broad, non-specific teaching of what 'can be' to a narrow, specific teaching of what 'is' is impermissible. In particular, Applicants respectfully submit that the Enck reference as well as any other reference must be examined for what the reference itself teaches, and not for what 'can be' surmised based on broad generalities that are contained within the reference. Put simply, it is not enough that a reference broadly hint at a limitation of a claim, but instead such a reference must specifically disclose or suggest such a limitation in order for it to be said that such a limitation is disclosed in or obvious from the reference. That is, what 'can be' done based on a reference is immaterial, and only what 'is' done is relevant.

To go from the broad to the narrow can only be conjecture based on hindsight and in view of that which is disclosed in the present application, and therefore is prohibited. Thus, Applicants respectfully submit that the Examiner especially reconsider all instances in connection with the present rejection where the Examiner shows a limitation based only on conjecture from a broad, non-specific teaching, and not on a narrow, specific teaching.

Accordingly, and for all of the aforementioned reasons, Applicants respectfully submit that the Enck and Lownsbrough references cannot be applied to make obvious independent claims 10, 23, 25, or 38, or any claims depending therefrom including claims 12, 13, 16-18, 20, 21, 27, 28, 31-33, 35, and 36. As a result, Applicants respectfully request reconsideration and withdrawal of the § 103 rejection of such claims.

Respectfully submitted,

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